

**EM375 – MECHANICAL ENGINEERING EXPERIMENTATION**  
**Fall 2002**

Text: Introduction to Engineering Experimentation (Wheeler & Ganji)

Lab days are Tues/Thurs according to sections

Classes are Mo/We

Week of	Event	Subject	Remarks
8/19	Mo Class	Introduction (Chapters 1 & 2)	Classes begin 8/19
	We Class	Statistics (6.1 – 6.3.2)	Prepare for the fire hose!
	Lab	Mathcad 1 and 2	
8/26	Mo Class	Statistics (6.1 – 6.3.2)	
	We Class	Statistics (6.4 – 6.4.1)	
	Lab	Mathcad 3, 4 and 5	27 <sup>th</sup> or 29 <sup>th</sup> field trip
9/2	Mo Class	No class (Labor Day)	
	We Class	Statistics handouts	"Tests Between Two Populations & Samples", "Pooled Variance"
	Lab	Measurements Lab	
9/9	Mo Class	Statistics (6.5, Review)	
	We Class	Exam #1	
	Lab	Mathcad 6 and 7	ODE's and introduce project
9/16	Mo Class	Equation Fitting (6.6.1 – 6.6.2)	
	We Class	Equation Fitting (6.6.2 – 6.6.3)	
	Lab	Rubbers Lab	
9/23	Mo Class	Uncertainty (7.1 – 7.2)	X-week Review Chapter 2
	We Class	Uncertainty (7.3 – 7.4)	
	Lab	Project	
9/30	Mo Class	Uncertainty (7.5 – 7.6)	10/1 (Tues) grades dues
	We Class	Uncertainty (7.7, 7.10)	
	Lab	Project	
10/7	Mo Class	Uncertainty	
	We Class	<b>Uncertainty</b>	
	Lab	Project	
10/14	Mo Class	<b>Review</b>	<b>Tu is Mo schedule</b>
	We Class	Exam #2	
	Lab	Project	
10/21	Mo Class	Report Writing	
	We Class	1 <sup>st</sup> Order Systems (11.1 – 11.3)	
	Lab	<b>Tu Project / Th Project Field Day</b>	

10/28	Mo Class	1 <sup>st</sup> Order Systems (11.1 – 11.3)	
	We Class	2 <sup>nd</sup> Order Systems (11.4)	
	Lab	<b>Tu Project Field Day / Th Instructor Choice</b>	
11/4	Mo Class	2 <sup>nd</sup> Order Systems (11.4)	X-week
	We Class	2 <sup>nd</sup> Order Systems (11.4)	
	Lab	<b>Thermocouple</b>	<b>Online Mathcad Page 8</b>
11/11	Mo Class	No class (Veterans' Day)	11/12 (Tues) grades due
	We Class	2 <sup>nd</sup> Order Systems (11.4)	
	Lab	Inclining Experiment	
11/18	Mo Class	2 <sup>nd</sup> Order Systems (11.4)	
	We Class	Sampling Rate Theorem (5.1)	
	Lab	Strain Gage	
11/25	Mo Class	Review	
	We Class	Exam #3	
	Lab	Tu lab comp time (see note)	Thanksgiving 11/28-29
12/2	Mo Class	Instructor Choice	ARMY WEEK
	We Class	Washup	Fri 12/6 last day of classes
	Lab	Th labs Comp Time (see note)	

The following problems from the text are the homework assignments. Your instructor will tell you what he plans to collect, and when. Additional problems from handouts may also be assigned. Even if your instructor does not assign all the following problems, you are expected to know how to do them, and the material covered by them is testable.

Chapter 6: 1, 3, 6, 8, 9, 10, 11, 16, 17, 20, 23, 24, 25, 26, 30, 31, 33, 34, 35, 36

Chapter 7: 1, 2, 6, 8, 9, 10, 11, 15, 19, 21

Chapter 9: 1, 3, 5, 7, 8, 10, 11, 12, 13, 14

Chapter 10: 1, 2

Chapter 11: 4, 6, 7, 9, 10, 12, 13, 15, 17, 28

Note: During the semester there will be at least one mandatory lunchtime engineering lecture. Comp time is as shown above.